

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of: Raymond S. Barsness, et al.  
Serial No.: 09/801,309  
Filed: March 7, 2001  
For: SUBJECT/OBSERVER UPDATE CONTROL METHOD AND  
APPARATUS  
Group Art Unit: 2445  
Confirmation No.: 2651

**AMENDED APPEAL BRIEF IN SUPPORT OF APPEAL FROM**  
**THE PRIMARY EXAMINER TO THE BOARD OF APPEALS**

Mail Stop Appeal Brief - Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

In response to the Notice of Non-Compliant Appeal Brief, Appellant(s) hereby submit an amended appeal brief in support of the appeal to the Board of Appeals from the decision dated October 17, 2008, of the Primary Examiner finally rejecting claims 13-17, 23, 25, and 27-36.

The appeal brief fee of \$540.00 is:

- ☐ Enclosed.
- ☐ \$40 required. (\$500 paid in prior appeal.)
- ☐ Charged to Deposit Account No. 09-0465.

Serial No.: 09/801,309  
IBM Docket No.: ROC920010075US1

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### **1. Real Party in Interest**

The real party in interest is International Business Machines, Inc., the assignee of the above-identified application.

## **2. Related Appeals and Interferences**

On September 2, 2005, Appellant initially appealed from the final rejection of all pending claims under Section 102(e) based on Patent No. 6,721,740 ("Skinner"). In response to Appellant's Appeal Brief, the Examiner withdrew the Section 102(e) rejections, acknowledging that Skinner does not disclose "the configuration information comprising an attribute of the observer" or "to selectively communicate the update information to the observer based on the configuration information" or "the configuration information comprising an attribute of the observer." *Office Action, mailed July 18, 2006 at pg. 5 and pg. 13.*

On July 2, 2007, Appellant again appealed from the final rejection of all pending claims, again based on the same Patent No. 6,721,740 ("Skinner"). In response to Appellant's Appeal Brief, the Examiner again withdrew all rejections. This time, the Examiner acknowledged that Skinner does not disclose the following elements:

- (i) "an observer adapted to generate configuration information . . . comprising an attribute of the observer";
- (ii) "selectively communicate the update information to the observer based on the configuration information";
- (iii) "an aspect object created by the observer and attached to the subject code segment, the aspect object configured to receive the update message from the subject code and to selectively communicate update information to the observer based at least in part on an attribute of the observer and the received information";
- (iv) "communicating configuration information from the observer to the aspect object, the configuration information comprising an attribute of the observer"; and
- (v) "selectively communicating the update to the observer based on a comparison between the update information and the configuration information."

*Office Action mailed October 29, 2006 at pgs. 6, 8, 16-17, 18, and 29.*

### **3. Status of Claims**

In the Final Office Action dated October 17, 2008, the Examiner: (i) objected to claims 13 and 30; and (ii) rejected claims 13-17, 23, 25, and 27-36 under 35 U.S.C. § 103(a) as being unpatentable over Skinner, et al. ( US Patent 6,721,740), in view of Shaw, et al. (US Patent 6,424,989); in view of Collins (US Patent 5,963,951); and further in view of Salam, et al (US Patent 6,594,654).

Claims 1-12, 18-22, 24, and 26 have been cancelled. Accordingly, Claims 1-12, 18-22, 24, and 26 are not part of this Appeal.

To reduce issues for this Appeal, Appellant previously submitted an Amendment under Rule 41 to address one of the claim objections. However, because these amendments have not been formally entered, Appellant reproduced the claims in Section 8 without these changes.

Appellant appeals the final rejections of claims 13-17, 23, 25, and 27-36.

#### **4. Status of Amendments**

Appellant amended claims 1, 4, 8, 10, 13, 16-17, and 19 in its Response filed December 27, 2004. The Examiner entered these amendments as part of the Office Action mailed June 3, 2005.

Appellant amended claims 1, 3, 5, 7-11, 13-16, 19, and 23 in its Response filed November 20, 2006. This Amendment also cancelled claims 6, 12, and 18, and added new claims 24-26.

Appellant amended claim 19 as part of its response filed on April 4, 2007. The Examiner entered this amendment as part of the Advisory Action mailed on April 24, 2007.

Appellant amended claims 13, 15, and 23; added new claims 27-36; and cancelled claims 1-5, 7-11, 19-22, and 24 in its Response filed February 29, 2008 and June 23, 2008. The Examiner entered these amendments as part of the Office Action mailed October 17, 2008.

Appellant previously submitted an Amendment under Rule 41.33 with a change to claim 30. This amendment has not yet been entered. Accordingly, Appellant reproduced the claims in Section 8 without this change.

## 5. Summary of Claimed Subject Matter

**Claim 13** is directed at a method of communicating updates from a subject to an observer. The method comprises in an observer, creating an aspect object; attaching the aspect object to the subject; notifying the aspect object of an update; in the aspect object, interrogating the update to generate the update information; and selectively communicating the update information to the observer based on a comparison between the update and the configuration information. *E.g., pg. 5, lines 5-12; pg. 8, line 4 – pg. 10, line 10; Figure 3.* In addition, the configuration information in this method comprises an attribute of the observer and the aspect object comprises logic adapted selectively communicate update information from a subject to the observer based on configuration information. *Id.*

**Claim 15** is dependent upon claim 13. Claim 15 further requires selectively accumulating the update information based on the configuration information. *E.g., pg. 5, lines 9-12; pg 7, line 18; pg. 8, lines 11-14; Pg. 10, lines 3-10.*

**Claim 17** is dependent on claim 15 via claim 16. Claim 17 further requires that the updated attribute of the observer includes a system load indication. *E.g., pg. 10, lines 11-17.*

**Claim 27** is dependent on claim 13. Claim 27 further requires that the configuration information comprises a type of updates desired indication. *E.g., pg. 8, lines 6-14; pg. 9, lines 3-9.*

**Claim 28** is dependent on claim 13 via claim 27. Claim 28 further requires that the aspect object selectively discard the update information in response to the type of updates desired indication. *E.g., pg. 8, lines 6-14; pg. 9, lines 3-9.*

**Claim 29** is dependent on claim 13. Claim 29 further requires that the attribute of the observer includes a maximum desired communication rate indication. *E.g., pg. 8, lines 5-7 and 18-21.*

**Claim 30** is dependent on claim 13 via claim 29. Claim 30 further requires accumulating the update information if a required communication rate is greater than the maximum desired communication rate indication. *E.g., pg. 5, lines 9-12; pg 7, line 18; pg. 8, lines 11-14; Pg. 10, lines 3-10.*

**Claim 32** is dependent on claim 13 via claim 31. Claims 31-32 further require preprocessing the update to selectively modify the update information in response to the configuration information, wherein the preprocessing comprises encapsulating the update with Internet routing information. *E.g., pg. 9, lines 10-16.*

**Claim 33** is dependent on claim 13 via claim 31. Claims 31 and 33 further require preprocessing the update to selectively modify the update information in response to the configuration information, wherein the preprocessing comprises compressing the message. *E.g., pg. 9, lines 10-16.*

**Claim 34** is dependent on claim 13 via claim 31. Claims 31 and 34 further require preprocessing the update to selectively modify the update information in response to the configuration information, wherein the preprocessing comprises encrypting the message. *E.g., pg. 9, lines 10-16.*

**Claim 35** is dependent on claim 13 via claim 31. Claims 31 and 35 further require preprocessing the update to selectively modify the update information in response to the configuration information, wherein the preprocessing comprises calculating a related value. *E.g., pg. 9, lines 10-16.*

**Claim 36** is dependent on claim 13. Claim 36 further requires, in the subject, providing a set of attach/detach methods that enable the observer to attach the aspect object to and detach the aspect object from the subject. *E.g., pg. 4, lines 6-11; pg. 8, lines 4-5; pg. 11, lines 3-8.*

**Claim 23** is directed at a method of maintaining data consistency between a subject object on a first computer system and an observer object on a second computer system. The method comprises by an observer object, creating an aspect object, the aspect object comprising logic adapted selectively communicate update information from a subject object to the observer based on configuration information, the configuration information comprising a desired type indicator and a desired communication rate indicator; and attaching the aspect object to the subject object. *E.g., pg. 4, line 12 - pg. 5, line 20; pg. 8, line 4 – pg. 10, line 10; Figures 2-3.* The method further comprises, in response to a state change indication from the subject object: sending an update to the aspect object; by the aspect object, interrogating the update to generate an update type indicator; by the aspect object, modifying the update based on a comparison between the



update type indicator and the desired type indicator to produce a modified update; by the aspect object, sending the modified update to an accumulator; by the aspect object, using the desired communication rate indicator to determine whether the object is ready to receive the modified update; and communicating the modified update to the observer. *Id.*

## **6. Grounds of Rejection to be Reviewed on Appeal**

Appellant appeals all final rejections. More specifically, Appellant appeals the Examiner's rejection of claims 13-17, 23, 25, and 27-36 under 35 U.S.C. § 103(a) as being unpatentable over Skinner, et al. ( US Patent 6,721,740), in view of Shaw, et al. (US Patent 6,424,989); in view of Collins (US Patent 5,963,951); and in view of Salam, et al (US Patent 6,594,654).

Appellant expressly states that the rejected claims do not stand or fall together.

## 7. Argument

### I. Rejections under 35 U.S.C. § 103(a)

The Examiner bears the initial burden of establishing a prima facie case of obviousness. *MPEP 2141*. Establishing a prima facie case of obviousness begins with first resolving the factual inquiries of *Graham v. John Deere Co.* 383 U.S. 1 (1966):

- (A) determining the scope and content of the prior art;
- (B) ascertaining the differences between the claimed invention and the prior art;
- (C) resolving the level of ordinary skill in the art; and
- (D) considering any objective indicia of nonobviousness.

Once the *Graham* factual inquiries are resolved, the Examiner must then determine whether the claimed invention would have been obvious to one of ordinary skill in the art.

In this case, Appellant respectfully submits that the Examiner has not properly characterized the teachings of the references and/or the claims at issue, nor established a motivation to make the proposed combinations, and thus, has not established the prima facie case of obviousness.

#### A. There would be no motivation to make the proposed combination.

##### *1. The Examiner failed to articulate any reason to make the proposed combination*

In the recent *KSR* case, the Supreme Court reemphasized that the Examiner must articulate a rationale for combining references, and suggests several possible rationales. *KSR International Co. v. Teleflex Inc.*, 550 U.S. \_\_\_\_, 82 USPQ2d 1385 (2007); *see also MPEP 2143*. Here, however, the Examiner does not attempt to establish any of the suggested rationales against most claims. Instead, the Examiner appears to merely assert the presence of various claim elements, and then allege that this mere presence provides the motivation to make combination. *E.g., Office Action mailed October 17, 2008 at pgs. 9, 11, 13*. Appellant respectfully asserts that, at the minimum, the *prima facie* case articulated by the Supreme Court requires more than

merely alleging the existence of various elements. Otherwise, the obviousness analysis collapses into an invalidity analysis with multiple references.

*2. The Examiner's reasoning for making the contribution is improper.*

To the extent that the Examiner does provide any rationale, those rationales are not relevant to the claimed invention. For example, in arguing that it would be proper to combine Collins with Skinner and Shaw, the Examiner states "Therefore, it would have been obvious to one of ordinary skill in the art at the time of [sic] the invention was made to combine the teachings of Salam with the teachings of Skinner, Shaw, and Collins 'to provide an on-line dating service that always provide users with the ability to perform searches based on user-specified criteria, including location criteria.'" *Office Action mailed October 17, 2008 at pg 11, 13; see also Id. at pgs. 9 (arguing it is proper to combine Shaw and Skinner "to provide for a novel process architecture which allows for direct hardware support in compression . . .")*. Even assuming this statement is accurate, the claimed inventions are simply not directed at on-line dating service. Or put more simply, the proffered motivation is to create a completely different invention than what Appellant disclosed and claimed.

*3. The Examiner relies on non-analogous art*

As explained in the Background Section, the present invention is directed at low-level, object-oriented ("OO") programming techniques. *E.g., Appellant's Background Section, pg. 2*. The essence of these techniques is the use of objects, which generally contain some information and a set of operations capable of manipulating that data. The secondary references, in contrast, are directed at on-line dating services, Internet search engines, and hardware architecture, respectively. As such, any 'objects' discussed in the secondary references would be fundamentally different entities than 'objects' in the claimed inventions. Because the secondary references are non-analogous art, Appellant respectfully submits that there would be no motivation to make the proposed combination. *MPEP § 2141.01(a)(I)*.

**B. The Examiner failed to adequately address all claim elements.**

The Office Action mailed October 17, 2008 mechanically groups claims 13 and 23, and thus, fails to specifically discuss a number of unique elements in claim 23. The missing elements include all of the elements beginning with “by the aspect object.”<sup>1</sup> Because the Examiner has not addressed all claim elements, Appellant respectfully submits that the Examiner has failed to establish a *prima facie* case for obviousness.

In addition, although the Office Action formally recites the elements of claims 17, 30, and 32-36, the analysis provided merely consists of a general citation to the entire text of four references. *E.g.*, *Office Action mailed October 17, 2008 at pg. 19 (reading five different claim elements against “Skinner, col. 1, line 6 – col. 26, line 13; Shaw, col. 1, line 4 – col. 36, line 10; Collins, col. 1, line 6, - col. 16, line 10; Salam, col. 1, line 8 – col. 36, line 6,” without additional comment or explanation)*. Appellant respectfully submits that these claims do not merely duplicate other elements. Thus, the general citations are insufficient to satisfy the *Graham* inquiry or the reasoned basis requirement in *KSR*.

**C. The proposed combination fails to teach or suggest “in an observer, creating an aspect object, the aspect object comprising logic adapted selectively communicate update information from a subject to the observer based on configuration information, the configuration information comprising an attribute of the observer” in claim 13 or “by an observer object, creating an aspect object, the aspect object comprising logic adapted selectively communicate update information from a subject object to the observer based on configuration information, the configuration information comprising a desired type indicator and a desired communication rate indicator” in claim 23.**

In conventional subject-observer systems, each subject maintained a list of observers and, when the subject's state changed, notified each observer of its state change. This notification occurred regardless of the observer's particular interest or the observer's capacity to handle the update. The observers would then request the updated information, again regardless of the

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<sup>1</sup> In some cases, the Office discussed similar elements with reference to claim 13 and its dependents. However, the language and structure of claim 23 makes these limitations patentably distinct.

observer's particular interest or the observer's capacity to handle the update. The subject's updates are then issued, only to be discarded by that observer. This drawback made conventional designs inflexible and inefficient, particularly in modern "distributed" systems because the remote messages are comparatively slow.

The claimed inventions are directed at a better way to implement the subject-observer paradigm – one that overcomes these drawbacks by introducing *observer created and controlled* aspect objects into a subject/observer implementation. In operation, each observer creates one or more aspect objects (i.e., both data and the procedures to manipulate that data) and then issues instructions to attach the aspect object(s) to the subject. These aspect objects, in turn, provide the observer with virtually unlimited flexibility to specify what specific type of information it wants, in what form the information it wants that information sent, and how frequently it wants the information to be sent.

Claims 13 and 23 have been carefully crafted so that the various elements work together to define the inventions. Appellant respectfully submits that, when all of the interlocking elements are considered, none of the references teaches or suggests these elements. More specifically:

*1. Skinner*

Appellant notes that the Examiner has conceded that Skinner fails to teach or suggest “in an observer, creating an aspect object, the aspect object comprising logic adapted selectively communicate update information from a subject to the observer based on configuration information, the configuration information comprising an attribute of the observer” in claim 13 or “by an observer object, creating an aspect object, the aspect object comprising logic adapted selectively communicate update information from a subject object to the observer based on configuration information, the configuration information comprising a desired type indicator and a desired communication rate indicator” in claim 23. *Office Action mailed October 17, 2008 at pg 8. C.f., Office Action, mailed July 18, 2006 at pg. 5 and pg. 13; Office Action mailed October 29, 2006 at pgs. 6, 8, 16-17, 18, and 29.* However, in the interest of completeness, Appellant

notes that the primary reference, Skinner, implements a subject/observer paradigm, but in a completely different way. Skinner uses a heavy-weight "interest registry," to manage interest criteria. *Skinner, col. 8, lines 24-32*. In the claimed inventions, in contrast, the observers themselves create aspect objects with the required logic and then attach those aspect objects directly to the subjects. The aspect objects, in turn, perform the requested filtering and/or throttling functions.

Moreover, Appellant notes that Skinner is directed at a method for components of an application to specify an interest in one or more data objects. *Skinner, col. 8, lines 13-16*. Skinner teaches that:

Interest for a single data object may be expressed explicitly, such as by specifying a unique identifier of the data object such as an object ID or serial number. Interest for a set of data objects may be expressed either explicitly with a set of unique object identifiers, or the interest may be expressed in terms of interest criteria. Each data object comprises one or more data attributes (or variables), and may further contain one or more metadata attributes. Metadata attributes comprise data or descriptions about a data object or the attributes the data object contains. Interest criteria may include a specific value or range of values for one or more attributes of a data object. *To evaluate whether a data object meets the interest criteria, the criteria is tested against attributes of the data object.*

*Skinner, col. 8, lines 55-68 (emphasis added)*. Unlike the present invention, the interest criteria in Skinner is limited to assembling conditions on the attributes of the data object. As such, it fails to teach any method for an observer to implement and register criteria based on the attributes of the observer, *see Office Action mailed July 18, 2006 at pg. 5*, much less the claimed observer-created and controlled aspect objects. In the claimed inventions, in contrast, each observer creates one or more aspect objects (i.e., both data and the procedures to manipulate that data) and then issues instructions to attach the aspect object(s) to the subject. These observer-created and controlled aspect objects, in turn, provide the observer with virtually unlimited flexibility to specify what specific type of information it wants, in what form the information it wants that information sent, and how frequently it wants the information to be sent.

These features of the claimed inventions provide significant advantages. For example, the claimed invention allows the observer to specify a desired communication rate, which the

subject can use to help determine whether the observer is ready to receive updates. As explained in the background section of the above-identified application, one drawback with conventional subject/observer systems is that the subject object controls the message transmission rate. Frequently, an observer object running on a heavily burdened system may not be able handle updates from the subject object at this rate. This drawback can cause a bottleneck at one processor, which can cascade to other processors and cause them to become backed-up as well. *Background, pg. 3, lines 3-8.*

## *2. Salam, Collins, and Shaw*

In an attempt to overcome the admitted limitations of Skinner, the Examiner cites to Collins, col. 5, lines 37-48, Shaw, abstract; and Salam, col. 4, lines 6-17.<sup>2</sup> Even assuming that this combination is proper, which it is not, the secondary references also fail to teach or suggest “in an observer, creating an aspect object, the aspect object comprising logic adapted selectively communicate update information from a subject to the observer based on configuration information, the configuration information comprising an attribute of the observer” in claim 13 or “by an observer object, creating an aspect object, the aspect object comprising logic adapted selectively communicate update information from a subject object to the observer based on configuration information, the configuration information comprising a desired type indicator and a desired communication rate indicator” in claim 23.

More Specifically, Collins is directed at an on-line dating service that stores information about what each customer is seeking in mate, including “a gender preference; a geographic location preference; an age preference; appearance preferences; religious belief preferences; educational level preferences; and a goal preference, and the goal preference is one of ‘romance’; ‘friendship’ or ‘a walk on the wild side’, the geographic location preference is at least one of a postal code, a country, a city, a suburb, a block, or a street.” *Collins, Abstract*. The paragraph quoted in the Office Action adds that the dating preference information can be obtained over the

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<sup>2</sup>The Examiner also makes general cites, such as to Skinner, col. 1, line 6 – col. 26, line 13. To the extent that the Office is relying on language other than that quoted or specifically identified, Appellant submits that the rejection would be improper under KSR. See *Section I(B)*.



telephone. Appellant respectfully submits that the Examiner's reasoning is flawed on many levels. First, neither the dating preference information nor resulting database records are not "objects" – observer, aspect, or otherwise – as that term is used in the claims and relevant art. As explained in the Background Section, the present invention is directed at low-level, object-oriented ("OO") programming techniques. *Application*, pg. 2. In this art field, the term 'object' is has a well-known and precise meaning, *e.g.*, *Skinner*, col. 6, line 5 – col. 7, line 15, and Appellant's Specification uses the term consistently. Second, neither the dating preference information nor resulting the database records are used to "configure" anything, much less "logic adapted selectively communicate update information from a subject to the observer based on configuration information." Third, the information stored is not "created" by another object or stored along with "logic."

Shaw also fails to teach or suggest these elements. Instead, Shaw is directed at an integrated circuit architecture for "Document-Instruction-Set-Computing (DISC)." *Shaw*, col. 1, lines 12-15. Shaw states that this differs from traditional computer processor architectures, such as CISC or RISC, because it is optimized for variable sized block oriented data, instead of traditional bit-oriented data streams. *Shaw*, Summary, at col. 4, lines 1-5. As a result of this focus, the major components of this system are subsystems on a computer chip, such as a packet processor 228, a transmission processor 222, a receiving processor 220, etc. Shaw appears to contain no details of or discussion about subject-observer system, much one with the specific "observer objects" and "aspect objects" recited in claims 13 and 23.

Salam haw also fails to teach or suggest these elements. Instead, Salam is directed at an Internet search engine in which a user can periodically run a saved query against certain sites. *Salam*, Col. 4, lines 6-29. Salam process received raw research results and sends a predetermined subset of stored search items, including selectable resource locator links, to user. Like Shaw, however, Salam is silent about object-oriented design patterns, and does not provide any details of a subject-observer system with the specific "observer objects" and "aspect objects" recited in claims 13 and 23.

**D. The proposed combination fails to teach or suggest “attaching the aspect object to the subject,” “notifying the aspect object of an update,” and “in the aspect object, interrogating the update to generate the update information” in claim 13; or “attaching the aspect object to the subject object” and “in response to a state change indication from the subject object . . .by the aspect object, interrogating the update to generate an update type indicator [and] by the aspect object, modifying the update based on a comparison between the update type indicator and the desired type indicator to produce a modified update” in claim 23.**

These elements are all directed to various additional limitations on the claimed “aspect object.” The Examiner reads these limitations against the Skinner reference, primarily at col. 10, lines 47-65. However, the Examiner later acknowledges that Skinner fails to teach or suggest the claimed “aspect object” itself. *E.g. Office Action mailed October 17, 2008 at pg. 8.* It follows logically from this concession that, without an “aspect object,” Skinner cannot perform the specific actions performed in the specific method recited in the claims - namely “creating a aspect object [by an observer object], the aspect object comprising logic adapted selectively communicate update information from a subject to the observer based on configuration information, the configuration information comprising an attribute of the observer”; “attaching the aspect object to the subject object”; “notifying the aspect object of an update”; and “in the aspect object, interrogating the update to generate the update information.”

As previously noted, the claimed inventions are not directed at the concept of a subject-observer system, nor do they cover any implementation of a subject-observer paradigm. Instead, the claims are directed at a specific way to implement the subject-observer paradigm using observer created and controlled aspect objects.

In the interest of completeness, Appellant respectfully asserts that none of the secondary references teach or suggest these elements either. The Examiner does not appear to contest this assertion in the Office Action mailed October 17, 2008.

**E. The proposed combination fails to teach or suggest “configuration information comprises a type of updates desired indication” in claim 27 and “wherein the aspect object selectively discards the update information in response to the type of updates desired indication” in claim 28.**

The Examiner relies on Skinner, col. 16, lines 21-33 and Skinner, col. 10, lines 25-39 for these elements. The first citation states that objects and method calls can be communicated between the client and server, and that this communication includes metadata describing the objects to be communicated, including its type. Significantly, however, the claims do not recite ‘an object type.’ Instead, they recite “a type of updates desired.” These are distinctly different concepts.

The second citation states that updates are filtered at a registry, but significantly does not state that this is done by an “aspect object” that was created by “an observer object” and that “compris[es] logic adapted selectively communicate update information from a subject object to the observer based on configuration information, the configuration information comprising a desired type indicator and a desired communication rate indicator” and that is “attach[ed] . . . to the subject object” and that “in response to a state change indication from the subject object: . . . interrogat[es] the update to generate an update type indicator . . . modif[ies] the update based on a comparison between the update type indicator and the desired type indicator to produce a modified update . . . send[s] the modified update to an accumulator . . . [and] us[es] the desired communication rate indicator to determine whether the object is ready to receive the modified update.” This is unsurprising, given that the Examiner has conceded that Skinner fails to teach or suggest an aspect object at all.

In the interest of completeness, Appellant respectfully asserts that none of the secondary references an aspect object that meets these specifically-recited criteria. The Examiner does not appear to contest this assertion in the Office Action mailed October 17, 2008.

**F. The proposed combination fails to teach or suggest “selectively accumulating the update information based on the configuration information” in claim 15.**

The Examiner relies on Skinner, col. 14, lines 50-60 for this element. That section states that the client-side application logic and GUI components allow the user to view the data, generate input, and control formatting. Significantly, however, nothing suggests accumulating update information based on configuration information, which itself both “an attribute of the observer” and part of an “aspect object” created “in an observer.”

Again, in the interest of completeness, Appellant respectfully asserts that none of the secondary references teach or suggest these elements. The Examiner does not appear to contest this assertion in the Office Action mailed October 17, 2008.

## **II. Objections to Claims 13 and 30**

The Examiner objected to claims 13 because the “the update” should be “the update information.” Appellant respectfully traverses. The “update” and the “update information” are separate, though closely related, elements.

The Examiner also objected to claim 30 because it contained an extra “an,” and stated the Examiner will treat it as such. Appellant has submitted an Amendment under Rule 41.33 that corrects this error. However, because this amendment has not yet been entered, Appellant reproduced the claims in Section 8 without this change.

## 8. Claims Appendix

1-12. (Cancelled)

13. A method of communicating updates from a subject to an observer, comprising:
- in an observer, creating an aspect object, the aspect object comprising logic adapted selectively communicate update information from a subject to the observer based on configuration information, the configuration information comprising an attribute of the observer;
  - attaching the aspect object to the subject;
  - notifying the aspect object of an update;
  - in the aspect object, interrogating the update to generate to generate the update information; and
  - selectively communicating the update information to the observer based on a comparison between the update and the configuration information.
14. The method of claim 13, further comprising selectively modifying the update information based on a comparison between the update and the configuration information.
15. The method of claim 13, further comprising selectively accumulating the update information based on the configuration information.
16. The method of claim 13, further comprising sending updated configuration information from the observer to the aspect object, wherein the updated configuration information comprises an updated attribute of the observer.
17. The method of claim 16, wherein the updated attribute of the observer includes a system load indication.

18-22. (Cancelled)

23. A method of maintaining data consistency between a subject object on a first computer system and an observer object on a second computer system, comprising:

- 1) by an observer object, creating an aspect object, the aspect object comprising logic adapted selectively communicate update information from a subject object to the observer based on configuration information, the configuration information comprising a desired type indicator and a desired communication rate indicator;
- b) attaching the aspect object to the subject object; and
- c) in response to a state change indication from the subject object:
  - 1) sending an update to the aspect object;
  - 2) by the aspect object, interrogating the update to generate an update type indicator;
  - 3) by the aspect object, modifying the update based on a comparison between the update type indicator and the desired type indicator to produce a modified update;
  - 4) by the aspect object, sending the modified update to an accumulator;
  - 5) by the aspect object, using the desired communication rate indicator to determine whether the object is ready to receive the modified update; and
  - 6) communicating the modified update to the observer.

24. (Cancelled)

25. The method of claim 13, wherein subject comprises an object and wherein the observer comprises an object.

26. (Cancelled)

27. The method of claim 13, wherein the configuration information comprises a type of updates desired indication.

28. The method of claim 27, wherein the aspect object selectively discards the update information in response to the type of updates desired indication.
29. The method of claim 13, wherein the attribute of the observer includes a maximum desired communication rate indication.
30. The method of claim 29, further comprising an accumulating the update information if a required communication rate is greater than the maximum desired communication rate indication.
31. The method of claim 13, further comprising preprocessing the update to selectively modify the update information in response to the configuration information.
32. The method of claim 31, wherein the preprocessing comprises encapsulating the update with Internet routing information.
33. The method of claim 31, wherein the preprocessing comprises compressing the message.
34. The method of claim 31, wherein the preprocessing comprises encrypting the message.
35. The method of claim 31, wherein the preprocessing comprises calculating a related value.
36. The method of claim 13, further comprising, in the subject, providing a set of attach/detach methods that enable the observer to attach the aspect object to and detach the aspect object from the subject.

## **9. Evidence Appendix**

N/A



## **10. Related Proceedings Appendix**

Cover to Appellant's Appeal Brief in first Appeal, mailed March 31, 2006.

Cover to Appellant's Appeal Brief in second Appeal, mailed July 2, 2007.

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of: Barsness, et al.

Serial No.: 09/801,309

Filed: March 7, 2001

For: SUBJECT/OBSERVER UPDATE CONTROL METHOD  
AND APPARATUS

Group Art Unit: 2145

Confirmation No.: 2651

Mail Stop Appeal Brief - Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**APPEAL BRIEF IN SUPPORT OF APPEAL  
FROM THE PRIMARY EXAMINER TO THE BOARD OF APPEALS**

Sir:

Applicant(s) herewith submit an appeal brief in support of the appeal to the Board of Appeals from the decision dated June 3, 2005, of the Primary Examiner finally rejecting claims 1-23. An appeal brief was previously filed December 2, 2005, but was rejected as noncompliant with 37 CFR 41.37. Applicant believes an appeal brief fee is

Docket No.: ROC920010075US1  
Serial No.: 09/801,309

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of: Raymond S. Barsness, et al.  
Serial No.: 09/801,309  
Filed: March 7, 2001  
For: SUBJECT/OBSERVER UPDATE CONTROL METHOD AND  
APPARATUS  
Group Art Unit: 2145  
Confirmation No.: 2651

**APPEAL BRIEF IN SUPPORT OF APPEAL FROM**  
**THE PRIMARY EXAMINER TO THE BOARD OF APPEALS**

Mail Stop Appeal Brief - Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Applicant(s) hereby submit an appeal brief in support of the appeal to the Board of Appeals from the decision dated February 6, 2007, of the Primary Examiner finally rejecting claims 1-5, 7-11, 13-17, and 19-26.

The appeal brief fee of \$500.00 is:

- ☐ Enclosed.
- ☒ Not required. (Fee paid in prior appeal.)
- ☐ Charged to Deposit Account No. 09-0465. A duplicate copy of this sheet is enclosed.

For each of the foregoing reasons, Appellant submits that the Examiner's final rejections of claims 13-17, 23, 25, and 27-36 were erroneous, and respectfully requests reversal of these decisions.

Date: July 27, 2009

Respectfully submitted,

By 

Grant A. Johnson

Registration No.: 42,696

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